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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,774	08/15/2000	Robert C. Phillips	205225	1252

  

EXAMINER	
LAZARO, DAVID R	

  

ART UNIT	PAPER NUMBER
2155	5

DATE MAILED: 06/22/2004

23460 7590 06/22/2004  
LEYDIG VOIT & MAYER, LTD  
TWO PRUDENTIAL PLAZA, SUITE 4900  
180 NORTH STETSON AVENUE  
CHICAGO, IL 60601-6780

Please find below and/or attached an Office communication concerning this application or proceeding.

Application/Control Number: 09/638,774

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functionality facilitating transforming the data within a file prior to a transfer (Col. 8 lines 5-12).

13. With respect to Claim 11, Rierden teaches all the limitations of Claim 1 and further teaches a data retrieval buffer interposed between a data storage facility and the set of specialized handler processors, the data retrieval buffer being independently accessible with respect to a primary RAM utilized by the default handler processor (Col. 5 lines 2-5).

14. With respect to Claim 12, Rierden teaches all the limitations of Claim 1 and further teaches new/old request differentiation logic enabling the server system to identify and respond to new connection requests at a different level of priority than a priority assigned to requests associated with existing connections (Col. 9 lines 26-31).

15. With respect to Claim 13, Rierden teaches a method for allocating received requests in a multiprocessor network server including a network interface, an intelligent switch (Col. 9 lines 31-34), a default handler processor (Col. 17 lines 4-5), and a set of specialized handler processors (Col. 17 lines 7-8), the method comprising the steps of receiving, by the network interface, a message packet including a request (Col. 8 lines 62-65), passing at least the request to the intelligent switch (Col. 8 lines 65-67), determining the request is a new request, and in response performing the further steps of identifying by the default handler processor, based upon a request type of the new request, a handler processor from the set of specialized handler processors that is capable of executing at least a portion of the new request (Col. 17 lines 6-24 and 43-49) and reassigning by the default handler processor, the new request to the identified

4-5) and configured to receive the new request from the intelligent switch, the default handler processor comprising delegation logic facilitating: associating a request type with at least a portion of the new request (Col. 17 lines 19-21), identifying a handler processor from a set of specialized handler processors for executing at least the portion of the new request based upon the request type (Col. 17 lines 6-8), and issuing a message reassigning at least the portion of the new request to the identified handler processor (Col. 17 lines 6-24 and 43-49), and at least one bus structure communicatively linking the set of specialized handler processors to the intelligent switch and request reassignment tracking logic enabling the intelligent switch to route message associated with at least the portion of the reassigned request between the identified processor and the network interface, thereby facilitating completing at least the portion of the new request through communications between the identified handler of specialized handler processors and the network interface via the intelligent switch without intervention by the default handler processor (Col. 17 lines 16-24 and 43-49).

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10. With respect to Claim 2, Rierden teaches all the limitations of Claim 1 and further teaches a storage server system is linked to the intelligent switch (Col. 4 line 65 to Col. 5 line 5) via a non-blocking switch (Col. 9 lines 31-34).

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11. With respect to Claim 7, Rierden teaches all the limitations of Claim 2 and further teaches the set of specialized handler processors includes a processor facilitating transfer of a file stored on the storage server system (Col. 9 lines 13-25).

12. With respect to Claim 9, Rierden teaches all the limitations of Claim 2 and further teaches the set of specialized handler processors includes a processor including

**DETAILED ACTION**

1. This Office Action is in response to the Amendment filed 04/12/04, Paper #4.
2. Claims 13 and 18 were amended.
3. Claims 1-24 are pending in this Office Action.
4. The Objection to the Specification is withdrawn.
5. The Objection to Claim 13 is withdrawn.
6. The 35 U.S.C. 112, second paragraph, Rejection of Claim 18 is withdrawn.

***Claim Rejections - 35 USC § 102***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 2, 7, 11 and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent 5,978,577 by Rierden et al. (Rierden).

9. With respect to Claim 1, Rierden teaches a distributed multiprocessor server system for facilitating delegated processing of at least portions of request associated with request message received via a communicatively couple network link (Col. 4 lines 15-16), the system comprising a network interface (Col. 4 lines 63-65), an intelligent switch couple to the network interface (Col. 9 lines 31-34), the switch comprising logic components for identifying a new request, corresponding to a message packet received by the network interface, passed from the network interface to the intelligent switch (Col. 9 lines 31-34), a default handler processor coupled to the intelligent switch (Col. 17 lines

# Office Action Summary

Application No.

09/638,774

Applicant(s)

PHILLIPS ET AL.

Examiner

David Lazaro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION..

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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buffer interposed between a data storage facility and the set of specialized handler processors, the data retrieval buffer being independently accessible with respect to a primary RAM utilized by the default handler processor (Col. 5 lines 2-5).

20. With respect to Claim 25, Rierden teaches all the limitations of Claim 13 and further teaches differentiating a new connection request from a request associated with an existing connection, thereby facilitating assigning a first priority to the request associated with the existing connection and a second priority to the new connection request (Col. 9 lines 26-31).

***Claim Rejections - 35 USC § 103***

21. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

~~22. Claims 3 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over~~  
Rierden in view of U.S. Patent 6,425,059 by Basham et al. (Basham).

23. With respect to Claim 3, Rierden teaches all the limitations of Claim 2 but does not explicitly disclose the storage server system having memory arranged as a set of version controlled partitions. However it is well known in the art that memory can be arranged into a set of version controlled partitions as shown by Basham (Col. 4 lines 39-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Rierden and modify it as indicated by Basham with the storage server system comprising memory arranged as a set of

handler processor to perform at least a portion of the new request (Col. 17 lines 16-24 and 43-49) wherein the intelligent switch creates a table entry identifying the request and the identified handler processor to which at least a portion of the new request is reassigned (Col. 15 lines 27-39), and executing, by the identified handler processor, at least the portion of the new request (Col. 7 lines 65-67 and Col. 16 lines 65-67) wherein during executing step the identified handler processor communicates with the network interface via the intelligent switch, thereby bypassing the default handler processor while executing at least the portion of the new request (Col. 17 lines 40-43).

16. With respect to Claim 14, Rierden teaches all the limitations of Claim 13 and further teaches a storage server system is linked to the intelligent switch (Col. 4 line 65 to Col. 5 line 5) via a non-blocking switch (Col. 9 lines 31-34), and the executing step comprises transferring data from the storage server to the network interface (Col. 17 lines 46-49).

17. With respect to Claim 19, Rierden teaches all the limitations of Claim 14 and further teaches within the set of specialized handler processors, a processor facilitating transfer of a file stored on the storage server system (Col. 9 lines 13-25).

18. With respect to Claim 21, Rierden teaches all the limitations of Claim 14 and further teaches within the set of specialized handler processors, a processor including functionality facilitating transforming the data within a file prior to transfer (Col. 8 lines 5-12).

19. With respect to Claim 24, Rierden teaches all the limitations of Claim 13 and further teaches storing data retrieved from a data storage facility in a data retrieval

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version controlled partitions. One would be motivated to have this as it allows one to share data among multiple users without destroying the integrity of the data (Col. 1 lines 33-36 of Basham).

24. With respect to Claim 15, Rierden teaches all the limitations of Claim 14 but does not explicitly disclose arranging stored content within the system as a set of version controlled partitions. However it is well known in the art that memory that can store content can be arranged into a set of version controlled partitions as shown by Basham (Col. 4 lines 39-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Rierden and modify it as indicated by Basham with the step of arranging stored content within the storage server system as a set of version controlled partitions. One would be motivated to have this as it allows one to share data among multiple users without destroying the integrity of the data (Col. 1 lines 33-36 of Basham).

25. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rierden in view of Basham as applied to claims 3 and 15 above, and further in view of U.S. Patent 5,546,558 by Jacobson et al. (Jacobson).

26. With respect to Claim 4, Rierden in view of Basham teaches all the limitations of Claim 3 but does not explicitly disclose incorporating a straddle into a partition. However, it is well known in the art that a straddle can be incorporated into a partition to facilitate continuous availability of stored data as shown by Jacobson (Col. 8 lines 30-39). It would have been obvious to one of ordinary skill in the art at the time the



invention was made to take the system disclosed by Rierden and modify it as indicated by Jacobson wherein a straddle is incorporated into a partition, thereby facilitating continuous availability of all stored data while a particular partition is relocated within the storage server system. One would be motivated to have this as it is desired to have continuous data availability in a storage system (Col. 1 lines 30-40 of Jacobson).

27. With respect to Claim 16, Rierden in view of Basham teaches all the limitations of Claim 15 but does not explicitly disclose incorporating a straddle into a partition.

However, it is well known in the art that a straddle can be incorporated into a partition to facilitate continuous availability of stored data as shown by Jacobson (Col. 8 lines 30-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Rierden and modify it as indicated by Jacobson wherein a straddle is incorporated into a partition, thereby facilitating continuous availability of all stored data while a particular partition is relocated within the storage server system. One would be motivated to have this as it is desired to have continuous data availability in a storage system (Col. 1 lines 30-40 of Jacobson).

28. Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rierden in view of U.S. Patent 6,484,186 by Rungta (Rungta).

29. With respect to Claim 5, Rierden teaches all the limitations of Claim 2 but does not explicitly disclose using a bitmap entry to represent a state of a file maintained by the storage server system. However it is well known in the art that the state of a file maintained in a system can be represented in the form of a bitmap entry as shown by

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Rungta (Col 1 lines 42-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Rierden and modify it as indicated by Rungta with a state of a file maintained by the storage server system is represented in the form of a bitmap entry and wherein a first bit is associated with a creator of new data in the file and a second bit is associated with a deleter of data stored in the file. One would be motivated to have this as it allows for internal file consistency that needs to be maintained in a system (Col. 1 lines 25-26 of Rungta).

30. With respect to Claim 17, Rierden teaches all the limitations of Claim 14 but does not explicitly disclose using a bitmap entry to represent a state of a file maintained by the storage server system. However it is well known in the art that the state of a file maintained in a system can be represented in the form of a bitmap entry as shown by Rungta (Col 1 lines 42-54). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Rierden and modify it as indicated by Rungta with the storage server system maintaining a state of a file in the form of a bitmap entry and wherein a first bit is associated with a creator of new data in the file and a second bit is associated with a deleter of data stored in the file. One would be motivated to have this as it allows for internal file consistency that needs to be maintained in a system (Col. 1 lines 25-26 of Rungta).

31. Claims 6, 8, 10, 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rierden in view of U.S. Patent 6,374,296 by Lim et al. (Lim).

32. With respect to Claim 6, Rierden teaches all the limitations of Claim 2 but does not explicitly disclose the use of ATM cells being sent from the non-blocking switch. However it is well known in the art that ATM can be used for transfer of data as shown by Lim (Col. 6 lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Rierden and modify it as indicated by Lim with the intelligent switch receiving messages from the non-blocking switch in the form of ATM cells. One would be motivated to have this since it is desired in implementing networks to use Industry standards such as ATM, Ethernet, and TCP (Col. 5 line 65 to Col. 6 line 11).

33. With respect to Claim 8, Rierden teaches all the limitations of Claim 7 but does not explicitly teach the file transfer is in accordance with a TCP named file transfer protocol. However, it is well known in the art that files can be transferred using a TCP named file transfer protocol as found in the standard ISO protocol suite as shown by Lim (Col. 6 lines 6-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Rierden and modify it as indicated by Lim wherein the file transfer is performed in accordance with a TCP named file transfer protocol over an identified connection. One would be motivated to have this since it is desired in implementing networks to use Industry standards such as ATM, Ethernet, and TCP (Col. 5 line 65 to Col. 6 line 11).

34. With respect to Claim 10, Rierden teaches all the limitations of Claim 1 but does not explicitly teach the set of specialized handler processors includes a processor including computer gateway interface (CGI) functionality. However it is well known in

the art that one can include CGI functionality in a specialized handler that will process a user request as shown by Lim (Col. 9 lines 10-12). ). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Rierden and modify it as indicated by Lim wherein the set of specialized handler processors includes a processor including computer gateway interface (CGI) functionality. One would be motivated to have this since CGI functionality is common in the web server environment and aids in determining and dynamically processing a user's request (Col. 8 line 67 to Col. 9 line 9).

35. With respect to Claim 18, Rierden teaches all the limitations of Claim 14 but does not explicitly disclose the use of ATM cells being sent from the non-blocking switch. However it is well known in the art that ATM can be used for transfer of data as shown by Lim (Col. 6 lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Rierden and modify it as indicated by Lim with receiving, by the intelligent switch, a message from the non-blocking switch in the form of ATM cells. One would be motivated to have this since it is desired in implementing networks to use Industry standards such as ATM, Ethernet, and TCP (Col. 5 line 65 to Col. 6 line 11).

36. With respect to Claim 20, Rierden teaches all the limitations of Claim 19 but does not explicitly teach the file transfer is in accordance with a TCP named file transfer protocol. However, it is well known in the art that files can be transferred using a TCP named file transfer protocol as found in the standard ISO protocol suite as shown by Lim (Col. 6 lines 6-11). It would have been obvious to one of ordinary skill in the art at

the time the invention was made to take the method disclosed by Rierden and modify it as indicated by Lim wherein the processor facilitating transfer of a file operates in accordance with a TCP named file transfer protocol over an identified connection. One would be motivated to have this since it is desired in implementing networks to use Industry standards such as ATM, Ethernet, and TCP (Col. 5 line 65 to Col. 6 line 11).

37. With respect to Claim 22, Rierden teaches all the limitations of Claim 13 but does not explicitly teach the set of specialized handler processors includes a processor including computer gateway interface (CGI) functionality. However it is well known in the art that one can include CGI functionality in a specialized handler that will process a user request as shown by Lim (Col. 9 lines 10-12). ). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Rierden and modify it as indicated by Lim providing, within the set of specialized handler processors, a processor including computer gateway interface (CGI) functionality. One would be motivated to have this since CGI functionality is common in the web server environment and aids in determining and dynamically processing a user's request (Col. 8 line 67 to Col. 9 line 9).

### ***Response to Arguments***

38. Applicants' arguments filed 04/12/04 (Paper #4) have been fully considered but they are not persuasive.

39. Applicants' argue in regards to Claim 1 – *"The Office Action proposes that the DDS 150 (in particular the RPC handler executed with the DDS 150 described in column 17) incorporates both the recited "intelligent switch" and the "default handler processor." However, utilizing this interpretation of Rierden's disclosure proposed by the Office Action, Rierden does not disclose that the recited "bus structure" and "request reassignment tracking logic" enable completing subsequent communications between the handler processors and the network interface "without intervention by the default handler processor." Instead the system disclosed in Rierden appears to require all communications to pass through the DDS."*

a. The examiner first notes the Office Action mailed 11/12/03 (Paper #3) proposes a different interpretation. The Office Action actually proposes a logical separation of the RPC handler functionality from the DDS such that the RPC handler is the default handler processor and the remaining DDS functionality serves as the intelligent switch connected to the network interface. The examiner also notes that the claimed subject matter regarding the recited "bus structure" and "request reassignment tracking logic" does not enable completing subsequent communications between the handler processors and the network interface "without intervention by the default handler processor". The claimed subject matter states "facilitating completing at least the portion of the new request" (from Claim 1), not enabling completion of subsequent communications. Furthermore, the examiner gives the limitation "without intervention" a broad interpretation based on the dictionary definition of "intervention". Webster's

Dictionary defines "intervention" as coming in or between so as to modify or hinder. In the "pass through" mode taught by Reirdon, the identified handler processes at least a portion of the new request and the results are sent from the identified handler to be passed through the DDS without additional processing or disturbance to the results (Col. 9 lines 22-25, Col. 17 lines 46-49, and Col. 18 lines 35-39). The examiner interprets this "pass through" to mean "without intervention". As such, the "bus structure" and "request reassignment tracking logic" taught by Reirdon, enable facilitating completing at least the portion of the new request "without intervention by the default handler processor".

40. Applicants argue in regards to Claim 13 – *"Rierden does not disclose an intelligent switch, bus, and multiprocessor arrangement that would support the recited steps including "bypassing the default handler processor while executing at least a portion of the new request" (carried out by one of the specialized handler processors) – as recited in claim 13."*

b. The exact claim limitation of concern from Claim 13 is as follows:  
"executing, by the identified handler processor, at least the portion of the new request, wherein during the executing step the identified handler processor communicates with the network interface via the intelligent switch; thereby bypassing the default handler processor while executing at least the portion of the new request." Rierden shows that the identified handler processor executes at least the portion of the new request. Specifically, Rierden states the

specialized handlers (data servers) execute the RPC's (Col. 7 lines 65-67) which are part of a new request (Col. 16 lines 65-67). After the RPC handler has identified the appropriate handler, part of the execution of the RPC requires the DDS to communicate with the identified handler to check for and establish a connection as needed (Col. 17 lines 40-43). Therefore, Rierden does disclose an intelligent switch, bus, and multiprocessor arrangement that would support the recited steps including "bypassing the default handler processor while executing at least a portion of the new request."

41. Applicants argue in regards to claims 2, 7, 9 and 12 and 14, 19, 21 and 24 – *"Rierden does not disclose a non-blocking switch interposed between a DDS and the data servers."*

c. The examiner interprets a non-blocking switch as having the capability of providing access to resources without the client having to wait due to congestion/traffic at the switch due to a large number of client requests. This is one of the problem Rierden addresses (Col. 1 lines 13-50), and the DDS in Rierden accesses resources for a multiple concurrent client requests in processing large numbers of transactions. Therefore, the examiner interprets Rierden to disclose a non-blocking switch interposed between a DDS and the data servers.



42. Applicants argue in regards to Claims 11 and 23 – *“Applicants respectfully request identification of the structure within Rierden corresponding to Applicants recited buffer (e.g. SRAM 45) interposed between the data storage facility (e.g., data storage) and the specialized processors. No such structure appears to be present.”*

d. The data storage facility described in Rierden, particularly the SQL devices (Col. 7 lines 65-67), typically contain a buffer (often called a buffer cache or data cache) for storing the most recently retrieved data. Rierden also teaches the data server may be composed of a processor and the database (Col. 5 lines 2-5). The buffer would inherently be interposed between the processor (specialized processor) and the database (data storage facility). The examiner notes the claimed subject matter does not explicitly indicate an SRAM buffer.

43. Applicants argue in regards to Claims 3 and 15 – *“While, not contending that version controlled partitions are new, Applicants respectfully submit that using the recited multiprocessor architecture to provide access to such a data storage facility type is neither disclosed or suggested in the prior art.”*

e. Reirdon has been cited and discussed as to containing the multiprocessor architecture with a data storage facility. Basham suggests the use of version controlled partitions for data storage (Col. 4 lines 39-42) and provides motivation (Col. 1 lines 33-36) as to why one would use version controlled partitions in a data storage facility, such as those in Rierden. Therefore, “using the recited multiprocessor architecture to provide access to such a data storage facility type”

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is disclosed and suggested in the combination of Rierden and Basham.

Furthermore, applicants provide only a conclusive statement with no explicit reasoning or explanation as to why "using the recited multiprocessor architecture to provide access to such a data storage facility type" is not disclosed or suggested in the prior art.

44. Applicants argue in regards to Claims 4 and 15 – *"Applicants respectfully submit that the prior art does not disclose using the recited multiprocessor architecture to provide access to a data storage facility that supports incorporating a straddle into storage partitions to facilitate copying stored data assets while maintaining the availability of the stored asset while the data is being copied to a new location."*

f. Jacobson specifically teaches a section in memory (a "straddle") is used for temporary storage during a relocation data (Col. 8 lines 30-39). The purpose is for the continuous availability of the data while this operation is being performed (Col. 9 lines 36-44 and Col. 1 lines 30-40). Therefore the combination of Rierden, Basham and Jacobson discloses "using the recited multiprocessor architecture to provide access to a data storage facility that supports incorporating a straddle into storage partitions to facilitate copying stored data assets while maintaining the availability of the stored asset while the data is being copied to a new location." Furthermore, applicants provide only a conclusive statement with no explicit reasoning or explanation as to why this is not disclosed in the prior art.

45. Applicants argue in regards to Claims 5 and 17 – *“Applicants respectfully submit that the prior art does not disclose using the recited bit-map entries to represent the current state of files within the data storage facility that is accessed via the multiprocessor architecture recited in claimed combinations.”*

g. Rungta specifically discloses the use of bit-map entries that represent the current state of files within a data storage facility (Col 1 lines 42-54). Therefore the combination of Rierden and Rungta discloses using the recited bit-map entries to represent the current state of files within the data storage facility that is accessed via the recited multiprocessor architecture. Furthermore, applicants provide only a conclusive statement with no explicit reasoning or explanation as to why this is not disclosed in the prior art.

46. Applicants argue in regards to Claims 6, 8, 10, 18, 20 and 22 – *“Applicants respectfully submit that while each of the elements, by themselves, may be known, the prior art does not disclose or suggest incorporating the recited elements into a system including the multiprocessor architecture recited within each of these claims.”*

h. Applicants provide only a conclusive statement with no explicit reasoning or explanation. It is not clear to the examiner exactly what the Applicants are arguing in terms of how the cited art is deficient in teachings or suggestions or why the proposed rejections are not sufficient in providing obviousness of the combination. As such, the examiner cannot fully respond to the argument.

***Conclusion***

47. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 703-305-4868. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Lazaro  
June 18, 2004



**HOSAIN ALAM**  
**SUPERVISORY PATENT EXAMINER**